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What's the Fastest-Growing Petroleum Market?

Backward Soviet System Shocks Marketers

European Marketing: Ahead, Yet Behind

NPN

National Petroleum News

Marketing Abroad

NPN
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Editor's Viewpoint

How much do you know about international petroleum marketing?

If you're like me, your knowledge of overseas petroleum marketing is somewhat limited. I had a few notions of how gasoline was dispensed in other countries, but I must admit I was startled by such things as the lack of governmental regulation in some countries, the advancement of high-tech point-of-sale equipment and the average price tag on a rollover car wash.

Our 14-page cover report series examines the Asia/Pacific Rim—highlighted with individual articles on Japan and Korea—Europe, the United Kingdom and the Soviet Union. In addition, there's a delightful two-page photo essay depicting car washes from around the world.

In compiling data for this series, most of our staff traveled overseas and saw first-hand how those gasoline distribution systems work.

This is *NPN's* first major plunge into the international marketing scene, but it certainly won't be our last.

To test your "worldly" knowledge, here's a list of questions about petroleum marketing in countries around the globe. The answers are listed below. However, if you really want to get some good insights into marketing techniques and operations abroad, I'd recommend that you read our feature series that begins on p30.

1) *Which two countries dispense compressed natural gas at many of their service stations?*
2) *What two European countries require the installation of Stage II equipment?*
3) *What country has used double-walled underground storage tanks for more than 25 years?*
4) *The United Kingdom encases underground storage tanks in concrete. True or false?*
5) *What percentage of its oil supplies does the Asia-Pacific region receive from the Middle East: 50%, 70%, 80% or 90%?*
6) *How many service stations are located in Japan?*
7) *What country charges $7 per rollover car wash?*
8) *Which countries probably have the most antiquated equipment and continue to use old and outdated methods of distribution?*
9) *Which country, do sources argue, resembles the U.S. in the amount of government scrutiny it receives?*
10) *Since the early '80s, some European equipment manufacturers have been producing cash-accepting terminals for service station dispensers. True or false?*

The questions aren't as easy as they seem.

—Peggy Smedley

1) Italy and Spain
2) Sweden and Switzerland
3) Germany
4) True
5) 70%
6) 55,000
7) Korea
8) Soviet Union, Poland and Czechoslovakia
9) United Kingdom
10) True

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NPN's international tour begins in the Asia-Pacific region. Japanese marketers are facing deregulation and increased competition, and Korean oil companies are becoming increasingly competitive internationally.

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The tour also stops in the Soviet Union, Europe and the U.K. The changes in the Soviet Union reveal how backward the petroleum industry is there. The European Community will unify the continent economically in 1992, making it virtually a new market.

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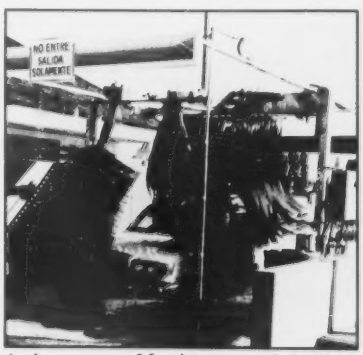

A photo essay of foreign car wash facilities is *NPN*'s postcard from this international tour.

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Exxon, Mobil, Amoco, Conoco and Hess All Report Whopping Earnings

The first-quarter earnings reports were almost unbelievable. Five of the top six companies, plus Conoco and Amerada Hess, all reported earnings increases ranging from 26.5%-90.7%. Just about everybody else on the list went the other way, declining as much as 68.3%. Shell, the nation's No. 1 gasoline vendor, slumped 38.4%.

For the big international companies, most of the earnings increases came from the refining and marketing segments.

For Exxon, it was something special. The $2.4-billion it netted in the first quarter was the greatest in its history dating back to the days when John D. Rockefeller organized the company in 1882. It was almost sad, too. The earnings report came within hours of a federal judge's rejection of Exxon's planned $1.1-billion settlement of its Alaskan Valdez problems, something it could almost have paid out of its side pocket. Here's the usual bird's-eye box score on the first quarter (see chart).

Corporate Earnings, First-Quarter 1991

(millions of dollars)

	1st Qtr. 1991	1st Qtr. 1990	% Chng.
Exxon	$2,240.0	$1,280.0	75.0%
Mobil	710.0	400.0	77.5
Chevron	557.0	473.0	17.8
Amoco	803.0	466.0	72.3
Shell	125.0	203.0	(38.4)
Texaco	415.0	328.0	26.5
Arco	351.0	592.0	(40.7)
BP America	NA	NA	--
Phillips	160.0	259.0	(38.2)
Conoco	322.0	197.0	63.5
Marathon	71.0	82.0	(13.4)
Unocal	75.0	77.0	(2.6)
Coastal	54.3	75.6	(28.1)
Amerada Hess	75.7	39.7	90.7
Sun	41.0	71.0	(42.3)
Pennzoil	22.0	32.7	(32.7)
Ashland *	26.6	0.9	--
Kerr-McGee	29.7	27.1	9.6
American Petrofina	8.3	26.2	(68.3)
Citgo	NA	NA	--
Murphy	25.6	22.0	16.4
Total Petroleum	(10.7)	(12.3)	---
Dia. Shamrock	4.3	4.3	0.0

** Second quarter, fiscal ends 9/30.*

Downstream: Everything's Sailing High

(millions of dollars)

Exxon (total)	$1,353.0	$191.0	608.0%
Domestic	256.0	(28)	--
Foreign	1,097.0	219.0	401.0
Mobil (total)	442.0	92.0	380.0
Domestic	100.0	39.0	156.0
Foreign	342.0	53.0	545.0
Chevron (total)	192.0	156.0	23.0
Domestic	99.0	59.0	68.0
Foreign	93.0	97.0	(4.0)
Amoco (worldwide)	214.0	129.0	66.0
Shell	4.0	(21)	--
Texaco (total)	271.0	166.0	63.0
Domestic	60.0	30.0	100.0
Foreign	211.0	136.0	55.0
Arco	74.0	72.0	3.0
Conoco	NA	NA	--
Marathon	102.0	77.0	32.0
Sun	38.0	25.0	52.0

There are a lot of "ifs" in the federal government's forecast on gasoline supplies and prices for the coming summer months.

Energy Information Administration (EIA) notes there were some uncertainties in mid-May, but there are even more in the future.

If certain things come to pass, either singly or collectively, EIA says, "temporary price increases above projected levels and localized shortages could occur during the summer driving season."

"Things" cited by the federal energy experts were possible failure of gasoline stocks to achieve "more normal levels" by summer, a weakness in imports in that significant supplies do not materialize, unexpected refinery shutdowns and a more robust demand than anticipated.

Otherwise, EIA said, the summer outlook is okay.

"The capability to meet demand through refinery production and imports exists," the government agency said, adding:

"Currently the refining operating capacity utilization rates are around 87%. This rate of utilization is below the average rate for this time of the year (mid-May) and means that refiners have flexibility to produce more gasoline. Imports, at the same time, have begun to return to more normal levels.

"Stocks which are currently (mid-May) low by historical standards are expected to rise and be at the normal level by the end of summer.

"Gasoline prices this summer are projected to be about 5¢/gal. higher than last year, but that difference is due to the increase in the federal excise tax as well as state and local tax increases."

The forecasters say gasoline demand should average about 7.39-million b/d, about 1.4% less than last year. Domestic refinery production is expected to average 7.13-million b/d vis a vis last summer's 7.06-million b/d. Net imports of gasoline are expected to average 292,000 b/d, down considerably from the record level of 432,000 b/d in 1990.

EIA says the projected gasoline price for the summer months, i.e., the retail level for all grades and services, is calculated at $1.21/gal., up 5¢/gal. over last year. This is more a reflection of higher taxes than physical fuel costs, EIA says.

In another matter dealing with gasoline prices, the American Petroleum Institute (API) reported that a new economic analysis of last summer's wholesale prices says there is no evidence to support claims of predatory pricing or "price gouging" by refiners.

The study, made for API by professor Philip E. Sorenson of the Dept. of Economics at Florida State University, took another long, hard look at the wholesale market in August and September in the wake of the Iraqi invasion of Kuwait and a modest splurge of higher prices.

• TRENDS

Divorcement Pressures Growing Once Again

Divorcement is well on the way to becoming one of the meanest supplier-marketer problems of the '90s.

There's no easy way out. The language on both sides is becoming tougher and so are the street tactics.

Connecticut, Delaware, Maryland, Virginia and the District of Columbia already have divorcement laws. Ten other states have or are debating such proposals now. It's probable that several more will join the legislative controversies before the year is out. Tension can't help but increase. There's no question that marketer opposition to the pricing tactics of the big suppliers will be near-bursting by 1995. And so will supplier resentment and resistance.

The turmoil may force Petroleum Marketers Assn. of America (PMAA) to reconsider its position on divorcement. Last fall, the PMAA board voted 44-to-7 to support divorcement and price control legislation in Congress. It softened its stand in January when price changes rebounded to the jobbers' favor. Now the swing back in the other direction may force PMAA to talk about it if not do something at the spring meeting. It may surprise some of the modern-day marketers that divorcement is not necessarily "their problem and their problem alone," a latter-day phenomenon so to speak. Divorcement, as an issue, has been around since the early '30s. It has been hot and cold since then, depending on the market pressures and the articulateness as well as the shrillness of the trade association executives defending their interests.

Texas Oil Marketers Assn. recently declared what it called all-out war against the suppliers and their pricing tactics. Its membership, at a meeting in San Antonio, voted unanimously to get the state Attorney General, the Federal Trade Commission and the U.S. Dept. of Justice to investigate and perhaps sue the refiners for restraint of trade. They concede that it's a bit too late this year to get a bill into or through the legislature. But they expect to have one ready by 1992. Meantime, their thrust right now is on the national level.

Another Southwestern divorcement proponent literally new to the fight is the giant Circle K chain, with several thousand gasoline outlets. One top executive says, "Something has to be done....You just can't get raped and pillaged at the discretion of the majors." He contends that the chain was being forced to brand its gasoline with a major logo to stay alive and competitive.

These are only a few of the many happenings that are arousing the marketers to fever pitch.

In April, Senators Dennis DeConcini (D-Ariz.) and Strom Thurmond (R-S.C.) co-introduced a divorcement bill that may attract some attention and perhaps put the PMAA under pressure again. PMAA has been encouraging its members to seek relief in the state legislatures, not the national arena.

At any rate, the DeConcini-Thurmond proposal would allow dealers to buy 30% of their product from sources other than the supplier who owns their outlet. It also would give dealers the right to sell unbranded fuel through the suppliers' dispensers provided the pumps were clearly labelled unbranded.

So far this year, 10 states have considered or are still working on divorcement bills. Here's the rundown:

- Georgia—divorcement scuttled for the time being.
- Hawaii—a bill passed by the House was converted into a study of the impact of divorcement on the state.
- Iowa—the debated bill is now being revised.
- Massachusetts—a bill is being considered.
- Missouri—a bill is being considered.
- New Mexico—the divorcement bill has been killed.
- New York—a bill is being considered.
- Oregon—the current bill is still alive.
- Utah—the proposal has been withdrawn.
- Virginia—the new proposal has been killed.

The fresh pressures stemmed, in no small measure, from a new national survey which showed that PMAA's marketer member income plunged nearly 77% during the Iraqi invasion. —*J. Richard Shaner*

• MARKETPLACE AT A GLANCE

AVERAGE GASOLINE PRICES IN THE U.S. (per gal.)

MARCH	Gasoline (All types)	Leaded Regular	Unleaded Regular	Unleaded Premium
U.S. City Avg.	$1.138	$1.047	$1.082	$1.246
Regions				
Northeast	1.211	1.299	1.136	1.335
North Central	1.128	1.099	1.088	1.256
South	1.132	1.113	1.062	1.242
West	1.088	1.019	1.049	1.228

Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

STOCKS (Add 000 bbl.)

	5/3/91	5/4/90
Gasoline (Total)	204,300	219,223
Gasoline (Unleaded)*	158,888	168,070
Jet Kerosine	37,541	41,094
Distillates	101,296	96,909
Residual	43,870	43,436

**Included in gasoline total.*
Source: American Petroleum Institute.

From filling stations straight out of the 1930s to state-of-the-art technology, from London to Moscow to Seoul, the global petroleum market is a fascinating scene. NPN takes a look at petroleum marketing and distribution in key countries and regions around the world.

Asia-Pacific: Fastest-Growing Petroleum Market in the World

For the remainder of this century and well into the next, the Asia-Pacific region will be the fastest-growing petroleum market in the world, participating in an economic boom that few would have anticipated even a few years ago.

The United States was founded and grew up in the eastern part of North America, dominated by the Atlantic Ocean, gateway to Europe. It has been Atlantic-oriented for centuries. Just in the past few years, however, eyes are swinging to the Far East. The 1980s opened up what has been called the "Pacific Century."

Japan's rising economic power is well known. China's throwing open its communist doors to capitalist development came as a big surprise. Hong Kong, Taiwan and South Korea are making great strides. The region is alive with enterprise and growth, fueled substantially by petroleum.

The East-West Center in Honolulu, a world leader in petroleum industry research and analysis, calls the Asia-Pacific region "the emerging center of gravity for the world economy." Even now, the region accounts for 20% of the world's total economic activity, according to the Bank of America.

Robert G. Reed III, chairman, president and CEO of Pacific Resources Inc. (PRI), a Honolulu refiner/marketer active in the region, says, "I believe the Asia-Pacific region will be the engine of growth, powering the world petroleum industry."

From India to California, from Alaska to New Zealand, and all points between, many petroleum companies—some private, some government—are competing energetically to see who will enjoy the largess of this phenomenon.

Dependence on Mideast oil

Hanging over Asia-Pacific is its heavy dependence on Mideast oil. Although the region has substantial crude oil of its own, two-thirds of its petroleum requirements are and will continue to be obtained from the outside.

By Mark Emond
Staff Reporter

The region's crude production will begin to decrease soon. There are four countries that now export more than they import (net exporter): Indonesia, China, Malaysia and Brunei. All but Brunei will become net importers during the decade.

PRI's Reed explains, "By the turn of the century, Indonesian crude production capacity is seen to decline, and almost all production will be required domestically. Recent increases in Malaysian production will support moderate exports in the 1990s. China may become a net importer by 1995. Although China may produce more oil in the coming decade, its increased internal demand will necessitate increased imports. Only Brunei is seen to continue large volumes of exports into the 21st century."

The East-West Center adds a note on Brunei: "Brunei is the one constant factor in the Asian oil scene. Brunei could easily continue its current rate of production essentially unchanged until late in the 21st century."

The Asia-Pacific region obtained 71% of its petroleum requirements from the Mideast in 1990 and is expected to obtain 90% in 2000. In physical terms, imports from the Mideast are likely to increase about 1.7-million b/d from 1990-'95 and by another 2.4-million b/d between 1995 and 2000. Thus the region's energy sector bears much of the potential instability of the Persian Gulf.

Although other petroleum suppliers to the region will have a decreasing share of the pie, the quantities are large and much worth the effort. The future appears to be bright for United States and other oil companies in a position to develop markets in the region.

Growth of gasoline demand

If economic growth is the engine of the Asia-Pacific region, petroleum is its fuel. The one thrives on the other.

Fereidun Fesharaki and Nancy Yamaguchi of the East-West Center, in a new study on *The Energy Supply and Demand Outlook in the Asia-Pacific Region*, say one of the big surprises of the '80s was the revival of the gasoline market in Asia.

Beginning in 1987, gasoline demand leaped ahead throughout the region. Korea experienced extraordinary 31% growth in 1988. Consumption by large consumers such as Australia also grew, and historically low gasoline consumption in countries such as Japan gave way to rapid growth.

Gasoline demand in the region is expected to grow at a rate of 3.9% annually through 1995, and 3% annually for the remainder of the century. From 2.6-million b/d in 1987, demand for gasoline (including naphtha) is expected to reach 4.0-million b/d by 1995 and nearly 4.6-million b/d by 2000.

Enter lead reduction

While gasoline demand is rising strongly, Asian refiners are moving ahead in the elimination of lead, which creates certain problems fateful to the region's future and to the success of outside gasoline refiners and marketers.

Tetraethyl lead reduction has not brought about a shortage of octanes, as might have been expected. The reason is that refinery technology in the region has tended to favor catalytic cracking, which produces high-octane gasoline.

The East-West Center says, "The rapid phaseout of lead at a time of soaring demand might seem to place impossible pressures on the Asian octane pool. Surprisingly, however, the current levels of upgrading firmly planned, plus facilities already in place, can easily cope with the octane problem."

The problem for Asian refiners is not octanes, but rather total available light and middle distillates, including naphtha, gasoline, kerosene and diesel fuel.

The Asia-Pacific region as a whole will eventually import more light products than it exports (net importer), and much of it is certain to come from the Mideast. This involves a risk for regional refiners, which will be explained later.

Light distillates accounted for 69% of all petroleum products refined in the Asia-Pacific in 1990, but to meet growing and changing demand, new refining capacity (incremental barrels) added between now and 1995 will have to yield 84% light products—a big challenge in the upgrading that will be taking place.

Refinery yields in 1990 were 8% naphtha, 18% gasoline, 13% kerosene, 40% diesel, 9% fuel oil and 8% other. The new refining capacity by 1995 will have to produce yields of 12% naphtha, 20% gasoline, 12% kerosene, 40% diesel, 9% fuel oil and 8% other, according to the East-West Center.

The two biggest gasoline consumers in Asia, Japan and China, are virtually lead free. (In China's case, the reason is not environmental.) Japan accounts for nearly 90% of all the unleaded gasoline demand in the region. Except for Japan and China, however, unleaded gasoline consumption does not exceed 25% in any other country.

The average Research octane number of unleaded gasoline, representing 51.5% of all gasoline sales in the region, was 92.5 in 1987 and is expected to remain the same in 1995. However, unleaded is projected to represent 84.4% of total sales at that time. Gasoline of 91-93 Research octane numbers amounts to approximately 45.2% of all gasoline sold.

The average Research octane number of leaded gasoline, representing 48.5% of the market, was 92.6 in 1987 and is expected to drop to 89.5 in 1995, when it will amount to only 15.6% of the market. Gasoline of the high end 97-98 Research octane numbers amounts to 20.1% of all gasoline.

Outlook for Asia-Pacific Supply-Demand Balance, 1980-2000

(000 b/d)

	1980	1985	1990	1995	2000
Regional demand	10,735	10,140	11,508	13,405	14,442
Regional production	4,885	5,790	5,910	5,880	5,480
Net oil required	5,850	4,350	5,598	7,525	8,962
Imports within region	1,255	1,874	1,797	1,213	450
Imports from Mideast	5,525	4,170	5,248	7,125	8,462
Imports from outside	325	180	350	400	500
Total imports	7,105	6,224	7,395	8,738	9,412
Dependence on Mideast	78%	67%	71%	82%	90%

Source: East-West Center

Because the region's refineries can produce octanes in excess of demand, some Asian countries, such as Thailand, Indonesia, and possibly even Japan, hope to export gasoline in the 1990s. But the Asia-Pacific region as a whole will be importing greater amounts of gasoline in future years.

Gasoline export troubles

Exportation of Asia-Pacific gasoline to the United States is limited in part because of the higher-quality products required to meet environmental regulations. U.S. gasoline has little or no lead, lower volatility (Reid vapor pressure, or RVP), less olefins, lower aromatics, more oxygenates. Gasoline imported into the United States from Asia requires further blending.

Environmental interest in Asia is concentrated on lead content, although aromatic and oxygenate controls are under study in Japan. Further controls are likely, but not expected to become widespread in this century.

If many Asian countries realize their ambitions to become major gasoline exporters, where will it all go? The West Coast of the United States seems the logical importer, but reformulated gasolines and tightening emission controls may be too big a hurdle.

West Coast gasoline demand is growing. The percentage growth isn't large by Asia-Pacific standards, but the volumes are. At the same time, crude oil production is declining overall, and environmental opposition seems to rule out development of offshore fields beyond what they already are, at least for the foreseeable future.

Refineries are under increasing pressures from their neighbors, and even where they are tolerated reasonably well, the cost of operating them continues to rise. It's unlikely any more major refineries will be built on the West Coast, or for that matter anywhere in the United States.

Some West Coast refiners are therefore considering meeting their gasoline requirements with imports, or locating new refineries overseas where regulations are not so onerous.

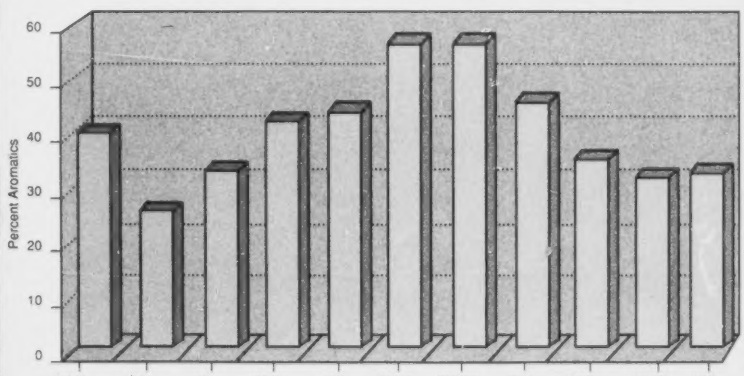
The problem of aromatics

"Although the West Coast market for gasoline may be attractive," say Fesharaki and Yamaguchi, "it is not clear that most Asian refineries will be able to meet new U.S. West Coast specifications. Until recently, the RVP restrictions and the requirement that the gasoline be unleaded were perceived as the major hurdles; now, proposed limitations on aromatics content of gasoline could add even more significant barriers to Asian exporters."

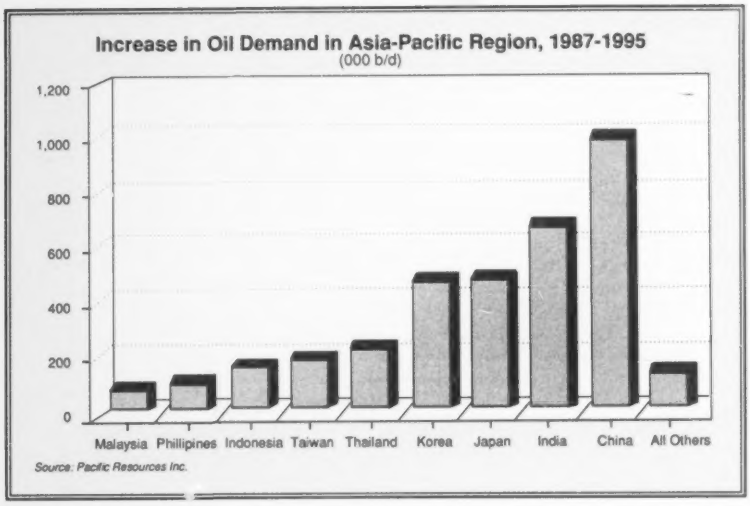
Relying heavily on catalytic cracking and reforming for the making of high-octane gasolines, Asian refiners produce proportionately more aromatics. Indeed, the East-West Center points out, "cat reforming exists primarily to convert nonaromatics to aromatics. Because of this high reliance on these two technologies, Asian gasoline blendstocks tend to be higher in aromatics than the U.S. average."

The 25% limit on aromatics being talked about now in some areas of the United States, particularly in California,

Estimated Gasoline Aromatics Content vs. Proposed U.S. 25% Standard



SOURCE: Pacific Resources Inc



cannot be met by any Asian country. With a national average of 32% aromatics, U.S. refiners cannot meet the lower standard either, except in the cases of individual refineries as upgrades are made.

But China comes closest with about 27%. Thailand's aromatics content is about the same as that in the United States, but others range significantly higher. Malaysia and Singapore gasolines have about 57% aromatics, South Korea 46%, Japan 45%, Indonesia 42%, Australia 40%, Taiwan 36% and India 33%.

Both Thailand and India, which come closest to meeting some probable U.S. requirements, have plans for refinery upgrading to produce more high-octane unleaded gasoline by catalytic means, which increase the output of aromatics. It could be that refiners that hope to penetrate U.S. markets will have to delay or slow the transition to unleaded gasoline in their own countries.

China, India, Indonesia, Thailand and South Korea are increasing their refining capacities.

After costly refinery upgrading takes place, the countries that are most likely to become gasoline exporters to the western United States and elsewhere might be said to rank approximately in decreasing order of the aromatics content of their gasolines.

Wanted: refining capacity

Oil demand in the Asia-Pacific is expected to expand from its base of 11-million b/d in 1987, the first year of renewed economic growth, to an estimated 13.1-million b/d in 1990, 15.6-million in 1995, and 17.7-million in 2000, the East-West Center forecasts.

Additions of 2-million b/d of refining capacity are firmly planned, and another 1-million b/d is under serious study, Fesharaki and Yamaguchi report.

This increasing and upgrading of refining capacity will have a greater impact on the region than might be expected because many of the new processing units will be located where the new products can be exported. Much of the region's higher-technology cracking is underutilized for governmental, economic and logistical reasons not related to gasoline demand.

"The presence of international oil companies as partners in many of the new ventures will help ensure better utilization," the East-West Center study says.

"Thus the new units may have a larger effect on the market than would be suspected from past experience, and there is also a possibility that the new tightness in the refining market will encourage fuller utilization of existing facilities.

"Together, the new units plus fuller utilization of existing facilities can go a long way toward meeting the incremental demand barrel [increased demand]."

Middle distillate demand increases will continue to put pressure on Asia-Pacific refiners. The catalytic cracking projects many intend to use will not increase the yield of distillates. Some refiners may find themselves lowering gasoline output to meet middle distillate production.

Because of growing opposition to sulfur in petroleum products in the Asia-Pacific regions, refiners will have a difficult time refining the high-sulfur crude coming in increasing quantities from the Mideast. Where sulfur restrictions are strict, imports may be the only solution for a time.

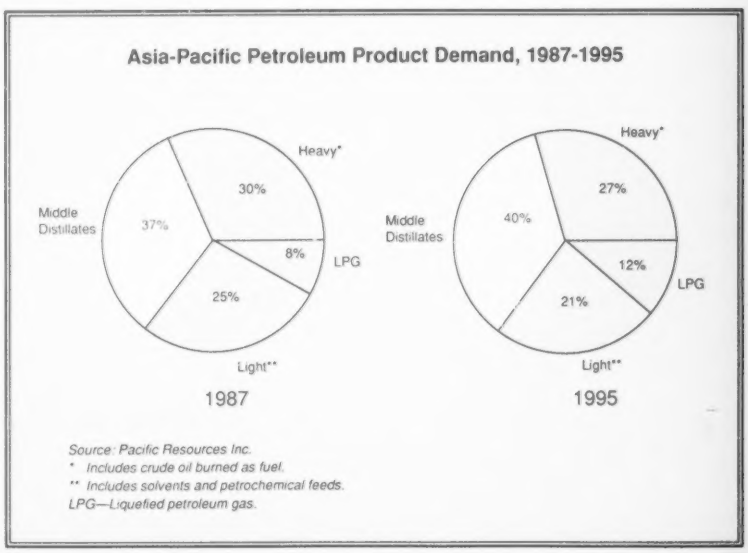
Of prices and crisis

Future petroleum prices will strongly dominate the course of events in Asia-Pacific oil markets, and they can only be dimly surmised. Practically all forecasts are based on conventional, middle-of-the-road expectations, which can be upset by an almost infinite variety of happenings.

For example, significantly lower Mideast crude oil prices could increase the region's dependence on that source and drive out other crudes, regional refinery-overbuilding could lower prices and force out competing products from overseas and expansion of Mideast refining capacity could weaken prices and damage Asia-Pacific refiners.

But within the limits of reasonable expectation, not of unforeseen events, the Asia-Pacific region is considered likely to develop along plausible economic lines and paths of least resistance. This will provide opportunities for all who understand it.

The East-West Center anticipates "a relatively tight market" in the '90s. Says the regional study, "We consider it unlikely that 3.1-million b/d of new capacity will be built between 1990 and 1995; we also



believe that product availability from the Mideast is unlikely to expand in the near term, and may contract significantly.

"In any case, if the existing product demand forecasts are correct, slight overbuilding would quickly be absorbed by demand growth in the second half of the decade."

But Fesharaki and Yamaguchi do see risks for Asia-Pacific refiners and others laying plans for marketing in the region. "The first possibility is that a new wave of export refineries will be constructed in the Mideast," the analysts say. "Although various expansions are under study, only modest expansions now seem likely between now and 1995; late in the decade, it may be a different story."

There is always the possibility of a Mideast disruption. If Mideast producers aggressively boost production while the production crippled in the gulf war comes back onstream, the stage will be set for another price shock that may or may not come.

The East-West Center reports Saudi Arabia and Venezuela, both of which boosted crude production during the Iraqi occupation of Kuwait, are presently considering further substantial increases. Fesharaki says that with excess production in their hands, they could possibly control the world market, but he suggests that "current decision-makers may have been replaced by a new generation," which could avoid a replay of past mistakes.

The center sees refining policies in the Mideast as pivotal later in the decade. "If Asian nationals continue to build to meet their own demand, and the Mideast countries also launch a major refining expansion for completion in the late '90s—and then a price shock occurs as well—the effective capacity overhang could be very large." This surplus could cause prices to crash.

PRI's Reed believes the Asia-Pacific's increase in demand for OPEC oil will be "critical in the determination of future prices." In particular, he sees the increased possibility of price volatility. "The greater the dependence on OPEC, the greater the possibility of political events having a magnifying impact on price movements," he explains.

"With future demand for OPEC oil rising so sharply, any shutdown of production through wartime activities would have a major impact on prices."

But Reed adds that demand growth in the Asia-Pacific region itself will "serve as a foundation upon which strong prices may be sustained."

Japanese Gasoline in '91: Deregulation a Problem?

Now that deregulation is a *fait accompli* in Japan, it would appear that many of its retailers—perhaps seven out of 10—are in big trouble. Veteran Japan watchers are essentially unconcerned, however. There's nothing calamitous on the horizon, the way they see things now. Tougher volume competition, increasing price and supply pressures, survival nightmares, etc., are all handwringing issues with which American gasoline marketers have long been familiar. That's it, in a nutshell.

Japan's petroleum industry is in the *fait accompli* stage of deregulation—a process that began about four years ago. Officially, deregulation ended in March of last year, but change is slow in coming onstream. There's no question that deregulation has reshaped the industry's operational procedures in many ways, but all in all, the changes have not impacted heavily on the street scene over the past year and there's not much likelihood that they will throughout the rest of the '90s, analysts say.

Consider the overall picture, for instance.

Japan has about 55,000 service stations, the majority of them clustered in and around metropolitan areas such as Tokyo, Yokohama and Osaka, for example, where real estate costs are fantastic and physical facilities are squeezed into the smallest spaces possible. This does not augur very well for expansion or in-house maneuverability.

About half of these stations average less than 20,000 gal./mo. (By way of comparison, there are approximately 210,000 retail gasoline outlets in the U.S., with an average of around 50,000-60,000 gal./mo. Retail pump prices in the U.S. are in the $1.10-$1.15/gal. area while those in Japan are in the $3.50-$4.00/gal. range. Taxes are the principal reason for the difference.)

Recent studies have indicated that Japanese gasoline marketers must average at least 26,500 gal./mo. to stay out of

trouble and in a profitable position. With at least half of the vendors running below that figure, it is obvious that a question of survival is a very serious issue for many of them now.

Another study by Japan Management Assn. Research Institute, San Diego, Calif., says that almost 40% of the service stations were operating in the red in recent years.

These numbers, while distinctly ominous, are not necessarily so. In Japan, distributors have more to say about retail prices than do the retailers themselves or the suppliers. Thus, at year's end, there are many retroactive price and profit adjustments to be made so that retailers, while technically unprofitable, are subsidized in such a way that they can stay in business.

Call it Nipponese economics or what—the procedure is hard to explain—but the end results are the same: Theoretically, the stations operate in the red, but their ability to stay alive and profitable is subsidized by their distributors at the end of the year.

Larry Emond, president of Japan Management Assn. Research Institute, Inc., a Japan-watcher for some time, gave *NPN* this commentary to help understand what's going on in the marketplaces there:

"The first step in the deregulation of the Japanese service station industry was a change in the fire regulations that took place in May 1987. This change made it possible to sell nonpetroleum products and services next to petroleum products and services. The nonpetroleum possibilities can include anything: C-stores, fast-food stores, video rental products and services and so on. The change made it possible for stations to be attached to other buildings, such as being the first story of a taller building. Previously, gasoline stations had to stand alone.

By J. Richard Shaner
Executive Editor

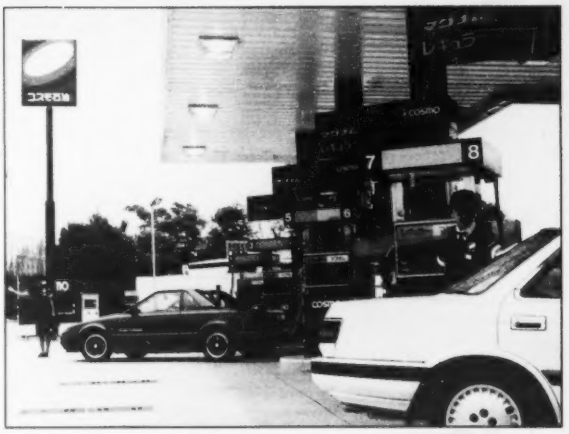
"Deregulation was completed at the end of March 1989. The final changes were the removal of limitations on the number of service stations that could be built. The government had mandated a maximum of 59,000 stations in the country. No new ones could be built unless they were one-on-one replacements. Another deregulation factor was the elimination of the requirement that retail stations had to function as exclusive distributors of their suppliers.

"Japanese business analysts have been reporting that the most significant effects are that many in the industry will be squeezed out and that the days for a large number of stations operating in the red are over. The analysts agree that the gas stations that do not pump more than 26,500 gal./mo. are doomed.

"Many Japanese stations appear to be scrambling to prepare themselves for increased competition. Idemitsu Kosan, which recently opened a United States subsidiary, Apollo America, to supply products to Japanese automakers in the United States, is currently building a convenience store/self-serve gasoline station in Portugal which it will operate as a test station, much like American oil companies use company-ops for market evaluations. An interesting commentary: The company chose to build the field-test unit in some other country because it would have been far too expensive to do it in Tokyo."

One thing to bear in mind about Japan is that while deregulation now makes it possible for gasoline stations to be side-by-side with convenience stores, it does not necessarily presage a door-opener for self-service gasoline marketing, which is absolutely taboo at the retail level. (In the United States, for example, approximately 60,000 of the nation's convenience store population of 80,000 not only sell gasoline, but strictly on a self-serve basis with the customer being forced to go inside the convenience store to pay his bill. Oil companies and independent distributors generally follow about the same procedure.

"Japanese C-stores, of which there are thousands in the country, are strictly small grocery stores. Customers have serve-yourself access to shelves and products, but they must go through a cashier and a register to pay for their items. If the customers want gasoline, they have to go to the gasoline facility which may or may not be next door or part of the overall complex."



Japanese gasoline customers are conditioned to getting attentive, courteous service from uniformed attendants at the islands. This tradition could help derail attempts to introduce self-service in that country.

Arco's recent deal with Japan's Kyodo Oil Co. of Tokyo, is being watched closely both by the Japanese and other investors with similar notions in mind [*NPN*—April '91, p21].

It will be very difficult to persuade or to force Japanese motorists to use self-service operations in the gasoline business. The last thing in the world that they want to do is abandon the long list of goodies that are now theirs.

For example, Japanese service stations and the flock of attendants they have on hand use driveway hawkers to cajole customers to come in. There the windows are washed, tires and gauges inspected, fluid levels are checked and so on, all with bright smiles and chatter from the attractive and smartly dressed service attendants.

The same holds true in the service bays where maintenance items and repair needs are taken care of swiftly. The customer is king at the Japanese service stations and is made to feel so. There also are free car washes and other items available for the asking.

In getting into the Japanese C-store and gasoline marketplaces, Arco thus joins Esso and Mobil as American companies that have been there for a long time. Shell also is there but that's a Royal Dutch affair rather than the American company which operates in the U.S.

Nippon Oil is Japan's biggest gasoline marketer, in both sales volumes and service stations. It has 10,000 stations and retails roughly 2-billion gal./yr. of gasoline. Idemitsu, Shell, Cosmo and Kyodo are the next four biggest vendors and station-owners. Mobil sells more gasoline than Esso, but Esso has more stations.

Japan has a little less than 60-million motor vehicles to take care of, roughly a three-to-two basis between passenger cars and trucks, buses, etc. The U.S., by way of comparison, has about three times as many vehicles, of which 145-million are private passenger cars vis a vis trucks and heavier vehicles.

JAPAN RANKS NO. 2 IN STATIONS AND VOLUMES

	Japan	U.S.	U.K.	France	W. Ger.
No. of Stations	55,254	115,870	22,184	31,500	19,500
Annual Volume (billion gal.)	10.1	113.5	7.9	6.6	8.2
Monthly Volume per Station (thousand gal.)	15.3	81.6	29.6	17.4	10.1
Monthly Volume Distribution (thousand gal.)	0-13.2	13.3-19.8	19.8-26.4	26.5-39.6	39.6+
Percent of Total (%)	45.6	25.6	15.1	10.3	3.2
Japanese Stations Operating in the Red					
Year	1988	1987	1986	1985	1984
Percent (%)	39.5	41.8	36.1	48.3	48.8

Source: Japan Management Assn. Research Institute, USA, San Diego, Calif., Larry Emond, president.

Korea: Yesterday and Today

Fueled by soaring demand at home and new opportunities beyond its borders, the Korean petroleum industry is shifting into high gear to meet the new challenges of the 1990s and beyond. Driven by the changing needs of a booming economy and energy demand that is expected to double in the next 10 years, Korea's relatively youthful industry is making dramatic changes domestically and overseas to capitalize on its new opportunities.

Korean oil companies are maximizing their efforts to expand refining facilities and are actively participating in a variety of product pipeline projects to improve transportation efficiency. Through these efforts, Korea is making tremendous strides to strengthen its international competitiveness.

Industry officials admit to problems and hurdles in meeting their goals. One of those obstacles has been the iron hand of government control on just about every aspect of the country's oil industry, from refining to limits on profitability to a minimum-maximum cap on retail gasoline margins.

The good news is that these regulatory shackles are finally being lifted, if somewhat gradually. Because the government is opening the door to a much freer marketplace, Korean oil companies are hoping this new environment will encourage U.S. oil companies to invest in a variety of marketing joint ventures with them.

As part of the program to deregulate the petroleum industry, the system which links domestic oil prices to foreign exchange rates was introduced in late 1989 (see chart). A "pole sign" system for retail service stations is also expected to be introduced. This would allow service stations to post competitive retail prices at their pumps.

"To meet these changing demands, the Korean oil refining industry needs to strengthen its financial structure, streamline its operations and increase its overseas exposure," says Chang Hong Sun, president of the Korea Petroleum Assn.

Because the government has played such a heavy hand in regulating the petroleum industry, oil companies there traditionally have not made a lot of money.

By Peggy Smedley
Editor in Chief

In contrast to U.S. major refining companies, profits are low. The combined profits of the five major Korean refinery firms between 1980-'88 were only $167-million, or an average of about $18.5-million annually.

The government not only places ceiling prices on petroleum products, it also limits the permissible profitability of companies to a maximum of 10% of their net worth. However, this governmental reign will continue to lessen in the months ahead. Policies regarding petroleum refining

facilities, distribution systems and imports and exports are also expected to be modified in an effort to ensure a more competitive market.

For some, a freer market is a mixed blessing. While many "agents" (Korea version of petroleum marketers) are pleased about deregulation, one Korean agent explains that he's worried about his survival. "I'm afraid of a free market. I'm not prepared and I'm not experienced enough," he explains.

Another agent notes that a free market will increase his profitability. "Maybe I'll make a good profit. I've been making less than a 10% profit. It's around 4-5%. After deregulation, I can foresee a profit margin perhaps about 15%."

The Korean oil industry has had to struggle to overcome some major hurdles. Korea is the world's eighth-largest oil-consuming nation, analysts say, but relies totally on foreign sources. The country's resources are very poor and it depends on foreign suppliers for 75% of its energy demand. The petroleum industry also relies entirely on foreign imports for its crude supplies.

However, the country is pushing ahead rapidly to secure more supplies. Currently, Korean firms and the state-run Korea Petroleum Development Corp. (PEDCO) are participating in 20 overseas oil exploration projects in 12 countries to secure more crude. The total investment to date in these projects is about $517-million.

Moreover, if the Ministry of Energy and Resources has its way, by the year 2000 more than 20% of the nation's oil needs will be supplied by Korean companies in joint ventures with foreign investors.

The country has also been astutely hedging against loss of crude from former primary suppliers. In the 1980s, Korea imported all of its oil from Saudi Arabia, Kuwait and Iran. Now the nation is supplied by 20 different crude oil suppliers.

Imports of crude oil in 1988 reached 261.1-million bbl., up 20.8% from the previous year. Imports of crude oil for domestic consumption amounted to 213.8-million bbl., an increase of 18.5% from 1987.

By region, imports of crude oil from the

Korea is working hard to expand its refining and pipeline capacity. During a tour of Korea last fall, hard-hatted *NPN* editor in chief Peggy Smedley (left) inspected a refinery with two Korean industry officials.

Middle East constituted 64.2% of the total imports in 1988. In 1989, the Middle East accounted for more than 65%. Southeast Asian countries accounted for 19.9% of the total in 1988, down 3.8 percentage points from the previous year.

In fact, prospects of oil shortages and higher oil prices had cast an ominous shadow over the Korean economy during the Middle East crisis. Korea had relied on Iran and Kuwait for about 12% of its total crude imports (4.2% of the total coming from Iraq and 7.6% from Kuwait.) Korea was concerned that a regional war would curtail supplies from other Mideast sources. One of its biggest suppliers, United Arab Emirates, just down the Gulf from Kuwait, accounts for 18% of Korea's oil supply; Oman supplies another 23% of the nation's crude (see chart).

The government is looking at ways to increase imports from the Soviet Union, the world's largest oil producer with an output of 12-million b/d. Yukong and Honam Oil already import more than 60,000 b/d from another socialist source—the People's Republic of China.

The industry is now faced with the vital task of expanding its crude processing capacity to meet the ever-increasing demand. To do this, it has been working overtime to increase refinery capacity from the present 840,000 b/d to 1,235,000 b/d by 1992.

KOREA'S CRUDE OIL IMPORTS FROM THE MIDDLE EAST (Jan.-June '90)

Country	Imports (In 10,000 bbl.)	Share of Total Imports (%)
Saudi Arabia	895	5.3
Kuwait	1,268	7.6
Neutral Zone	673	11.2
Iran	1,877	1.2
Iraq	708	4.2
UAE	2,950	17.6
Qatar	438	2.6
Oman	3,808	22.7

Data: Korea Petroleum Development Corp.

Korea's marketing channel for petroleum products is divided into three parts: refiners, agents and service stations. Gasoline, diesel and kerosene are distributed to retail outlets via agents, since oil companies are prohibited from direct ownership at retail. At the beginning of 1990, there were five oil refining companies, about 105 agents and 2,760 service stations in Korea.

About 70% of the gasoline stations are owned by individual retailers and 30% are owned by agents or wholesalers/retailers.

Prior to 1980, refiners were allowed to own service stations. Then, in 1980 a law prohibiting new refiner-owned locations was enacted, but the companies were allowed to keep stations they already owned. Refiners got around this law somewhat by lending money to agents to build facilities, thus keeping their hooks in retail to some degree. Also under the law, agents are the designated distributors of petroleum products to service stations; refiners are not permitted to supply stations directly as noted earlier. Sources say this is expected to change, too, in the new deregulated environment.

Another anticipated change in the law is the prohibition of foreign ownership or investment in service stations. As of now, only Korean citizens can own stations.

In many ways, the Korean retail industry is about where the U.S. industry was 10 or 15 years ago—and in some respects, earlier than that. Automotive service work in stations—TBA centers as Koreans call them—are widespread and very popular. Full-service at the pumps is

Petroleum Industry Deregulation Plan

	Initial Stage	Second Stage	Third and Final Stage
Oil Prices	•Linking to foreign exchange rates	•Linking to international of prices	•Liberalization of oil prices
	•Revisions of the price structure	•Abolition of the posting of consumer prices	
	•Tax revisions		
Refining	•Abolition of the facilities change permission system	•Abolition of the facilities expansion permission system	•Liberation of the opening of business
Distribution	•Introduction of trademarks	•Easing restrictions on sales agents	•Liberalization of the opening of sales agents
	•Reduction of the distance between service stations	•Transfer of power to permit the opening of service stations to provincial governments	
Imports and Exports	•Abolition of the crude oil import permission system	•Abolition of the export recommendation system	•Abolition of the import recommendation system
	•Abolition of the import reporting system every quarter	•Abolition of the crude import approval system	

the only service available—self-serve is unknown. Convenience stores, however, are beginning to gain popularity. Quick lube outlets, unattended or cardlock stations and free car washes are practically unimaginable to Korean agents. Rollover car washes are available, but have a price tag on average of $7 per wash. Station electronics, POS, etc., are still on the drawing boards.

The majors

Korea's refining industry has been described as an oligopoly, with the top two companies controlling four-fifths of the country's petroleum market share.

Here's a brief rundown on Korea's five major producing companies:

Yukong Limited:

Yukong was established in 1963 as part of the first five-year socioeconomic development plan. It maintains about 42% of the market share. It has 5,250 employees and markets about 133-million bbl./yr.

Honam Oil Refinery Co. Ltd.:

Honam was established in 1967 and is the largest oil refining company in Korea with a capacity of 380,000 b/d. It has 2,023 employees and has an annual sales volume of about 118-million bbl.

Kyung In Energy Co., Ltd.:

Kyung was established in 1969. It has 870 employees and an annual sales volume of 27-million bbl.

Ssangyong Oil Refining Co., Ltd.:

Ssangyong was established in 1976. It was the first Korean company equipped with facilities for producing lube base oil. It has 1,230 employees and an annual sales volume of 41-million bbl.

Interestingly, Ssangyong Oil was expected to sign a contract to build a joint-venture oil refining plant in South Korea with the Saudi Arabian Oil Co., despite opposition from the government, sources say. The new refinery plant, estimated to cost about $700-million, is expected to process about 80,000 b/d.

Kukdong Oil Co., Ltd.:

Kukdong was established in 1964. It has 1,314 employees and annual sales of 20,583 bbls.

The beginning

The modern-day Korean petroleum industry got its start in 1964 when its largest oil company, Yukong Ltd., opened. Four more oil companies followed suit and the five oil companies—Yukong, Honam Oil Refinery Co., Kyung In Energy Co., Ssangyong Oil Refining Co. and Kukdong Oil Co.—account for to up to 840,000 b/d in refinery output at present.

It's interesting to note that all five refineries were joint ventures with foreign partners at the outset. However, in the '80s, Gulf Oil Co. and National Iranian Oil Co. withdrew from Yukong and Ssangyong. In 1983, Union Oil of California (Unocal) split off from Kyung In. Royal Dutch Shell parted ways with Kukdong in 1977. Now, except for Honam, which is still tied up with Caltex Petroleum Corp., the other four companies are now 100% owned by Korean investors.

Beginning in 1983, following the oil shortages and economic slumps of the previous decade, Korea's oil industry began to take off, growing at a pace of about 15% per year. Spurred by overall economic growth, domestic oil demand soared 14.6% to 287,253,000 bbl. in 1989 and in 1990 demand was expected to rise 16.4%.

Similar to the U.S., the Korean government is also concerned about reducing air pollution. To date, the government is attempting to switch the fuel used in large cities from high-sulfur Bunker-C oil to such clean energy as LNG or low-sulfur oil. Since July 1987 it has mandated the use of unleaded gasoline for cars.

Korea is making great strides in modernizing its petroleum facilities, but full-service remains the only method for gasoline dispensing.

Backward Soviet System Shocks Visiting Marketers

Pumps dating back to the 1950s, delivery trucks with leaking hoses, clerks figuring out sales on abacuses and fillup lines four blocks long are just a handful of sights U.S. marketers tell of a recent trip to the Soviet Union, Poland and Czechoslovakia.

Marketers returning from the "People To People" organized trip brought back vivid accounts of the shortages, long lines, public discontent and political uncertainty that the failing economies of the once-Communist countries are now undergoing.

By By Angel Abcede
Staff Reporter

"[The Soviet system] is a testament to free enterprise," observes Kent Johnson, of Fearless Farries Wholesale Company out of Boise, Idaho. "[You can] see the frustration of the people, how their equipment is very antiquated. And their methods of distribution...there are only so many ways to fill cars, but in Moscow, they're using old and outdated methods."

Johnson was one of 37 marketers traveling on a recent "People To People" trip, a travel organization formerly affiliated with the U.S. government that acts as a cultural exchange. The marketers, many of whom have high profiles in the jobber community, traveled at their own expense last fall to the cities of Prague in Czechoslovakia; Warsaw in Poland; and Moscow and Kiev, in the Soviet Union.

While the stories these marketers tell barely scratch the surface of the Eastern Bloc's economic plight, their insights from what they saw of gasoline marketing paint a vivid picture of where these countries are today and where they have yet to go.

neither the Poles nor the Russian occupiers had the technology to produce these deep reserves.

Today, Polish politicians are wary of being exploited. Even though they know that their crude oil and natural gas, if produced, could provide the financial resources to bring Poland into the 21st century, they are reluctant to grant outsiders authority to develop their oil and gas properties.

The new government leaders in Poland, by and large, are political amateurs. They have trouble making decisions and in sticking with the decisions they do make.

Engineering skill

At least one well-known U.S. oil marketing equipment manufacturing company established a corporate beachhead in Poland within days after the Communist government had been swept away. This U.S. company now operates several corporate subsidiaries in Poland, all of which are involved in the design and development of marketing systems and software for use in the European market.

The company CEO, an American from the Midwest, speaks in glowing terms of the quality of the work being performed there. Older Polish and Czech engineers, he says, had become so accustomed to the noncompetitive Communist industrial environment that they are unable to make any real contribution to the company's operational strategy.

However, young Polish engineers, recent graduates of Polish technical colleges, are doing extremely outstanding work for the company. All of the engineers speak excellent English, the firm's CEO comments, and within six months after coming aboard they were assisting with the design of advanced systems, not only for use in the European market, but for use in the United States and Canadian markets, as well.

Penetrating the EC market

There are, it is believed, extensive business opportunities in the new Europe for U.S. manufacturers of petroleum marketing equipment and systems.

Exploitation of these opportunities, however, requires a European presence—subsidiary companies, business partners, or strong distributors with an intimate understanding of the nuances of the European market.

Some of the executives with whom we talked expressed the view that any U.S. manufacturer who hopes to be a serious player in the European Community market, and who has not already established a solid corporate presence there, may have waited too long.

Even those U.S. manufacturers who have a strong foothold in Europe are going to find competition rigorous.

In the European market (as in most overseas markets, notably the Japanese), local manufacturers have a clear advantage. Each European country has established its own technical standards for oil marketing equipment and, typically, these standards are written in a way that makes it difficult for outside manufacturers to measure up.

Some U.S. manufacturers believe there will be a "homogenization" of technical standards next year, when the EC becomes a formal reality. That is, instead of 12 or 13 different technical standards in each of 12 or 13 different countries, there will be one set of technical standards that applies throughout Europe. A U.S. or Canadian manufacturer of oil marketing equipment who manages to conform to this single set of standards would thus be able to market his or her products anywhere from Greece to Scotland without requalifying the company's technology in each local market.

That is the scenario of an optimist. Other U.S. manufacturers believe that even though Europe will be politically united into a single market, individual country-states will continue to find ways to enforce their own technical standards.

U.K. Market Settling Down After Buyouts, Oil Shock

Gasoline marketing in the United Kingdom in recent years has been a whirlwind of public scrutiny, price spikes and corporate buyouts.

In a land where the little chaps of the "petrol" industry appear to dictate price to the oil kings, movement in the marketplace seems as volatile as anywhere in the U.S.

Visually, it's a marketplace that closely resembles Anycorner, U.S.A. Canopied pumpers, convenience stores and rollover car washes are commonplace. High image standards featuring clean, well-lit locations also appear to go over well across the Atlantic.

"Petrol is a distress purchase here in the U.K., something people feel forced to buy," says one British economist. "So the conveniences and amenities are attractive to motorists."

Some may argue the U.K. also resembles the U.S. in the amount of government scrutiny it receives. Since an industrywide investigation by the Monopolies and Mergers Commission (MMC) culminated in early 1990, two more government probes have been launched by separate government entities.

Skyrocketing street prices are partly to blame. In the wake of the Iraqi invasion of Kuwait last August, prices zoomed 30 pence (52¢) per what are called "imperial" gallons (somewhat larger than the U.S. gallon). Politicians and the tabloid press stirred up a public storm over the increases.

Besides backlash from consumers, uncertain times have put many companies in peril. The crisis in the Middle East certainly put to question the future of the Kuwaiti-owned chain of "Q-8" gasoline outlets in the U.K., but despite rumored sellouts, so far, it has been business as usual, with the Kuwaitis finding alternate sources of supply.

Other businesses did change hands as two major buyouts occurred during the past two years. One of these involved Amoco, which sold its U.K. marketing assets to a French firm. The Chicago-based major oil company appeared to many in the industry to be pulling out of a market where they simply didn't have enough presence. Observers say this reflects the overall strategy the majors appear to be pursuing in the U.S., i.e., pulling back to their primary market areas.

The public eye

Activity in the U.K. oil industry at many points in the year became page one fodder for the popular press. Including the MMC

By Angel Abcede
Staff Reporter

investigation, no less than three major probes were conducted by separate governmental bodies.

The first and most significant investigation was the one conducted by the MMC. That took 12 months and has been described as the most thorough investigation ever of the U.K. oil industry. When it concluded in the early part of last year, it produced a 500-page report.

Triggering the probe were allegations of price fixing, fueled by the fact that most of the retail outlets in the U.K. belonged to a handful of major oil companies.

Everything from fines to retail divorcement loomed as penalties if the MMC investigation turned against the oil companies. However, after a year of holding its breath, the industry found itself vindicated of any wrongdoing. The report held that prices were set in response to market conditions and that no collusion or price fixing among the companies ever took place.

Several months later, the price spike caused by the Persian Gulf war set off a frenzy of protest by the British public, an outcry fanned by the tabloid press and politicians promoting the image of the "profiteering and opportunistic" oil companies.

This time around, the Office of Fair Trading put the oil companies under the magnifying glass, but again could find no evidence of undue greed or opportunism.

Not satisfied, Parliament decided to get into the act, authorizing a third investigation and forming a Select Committee on Energy to look into pricing. But that probe too exonerated the oil companies of any wrongdoing.

Innocent though they might be, oil companies in the U.K. seem to suffer from some of the same image problems as their U.S. counterparts. "The oil companies...have a singular inability to communicate to the public," says one British economist.

Philip Algar, an oil industry economist says the oil companies were only responding to market forces when crude prices shot up. The companies were "relatively slow in [raising street prices] and relatively quick to pull them down," he says.

Algar says consumers should be made aware of the big tax bite the government claims on each gallon of gasoline—67% of that imperial gallon.

"Along with the price of gasoline at the pump ought to be a sticker that says how much goes to the government." Algar says. "But the oil companies are scared of upsetting the U.K. government for fear of losing out in the allocation of licenses for North Sea production."

Who's who?

Just who are the big players in the U.K. retail market? In a universe of roughly 19,000 retail outlets, Shell ranks No. 1 with 2,653 locations. Esso (or Exxon) comes in second with 2,520. In third place is British Petroleum, the very same BP that's brightening up the U.S. landscape with its green and yellow canopies.

BP, in the midst of a similar upgrade and investment program in its homeland, has 1,992 locations. Of the big three, BP is the only international company with headquarters in the U.K. (Figures obtained from the Petroleum Review Supplement, "Retail Marketing Survey, March 1991" available through The Institute of Petroleum in London. Cost: L25.)

The top three companies own roughly half of their locations, with a good majority of them being self-serve.

Of Shell's locations, almost half, or 1,130, are company-owned and 1,504 are self-serve. For Esso, it is 982 company-owned and 1,288 self-serve. BP owns 769 of its branded outlets and operates 1,368 of them self-serve.

Major brands familiar to U.S. marketers who also maintain a strong presence in the U.K. are Texaco, Mobil and American Petrofina. They rank 5th, 7th and 8th respectively in numbers of outlets (see sidebar).

Brands U.S. marketers may not be familiar with include Burmah/Major, (4th) with 1,097 stations; Jet, (6th) with 857 stations; Q-8/Pace, (8th) with 588 stations; and Elf Aquitaine, the French oil giant, (11th) with 532 stations.

Other recognized brand names include Total, Gulf, Maxol, Heron, Flare, Phoenix and Telegraph.

The market

All told, there are roughly 60 companies marketing in the U.K. Although a vast majority of the retail outlets belong to the major oil companies, experts say the market is not completely dominated by the big boys.

"The little guys, without massive overhead, buy relatively cheaply at Rotterdam and are very competitive," Algar says. "There's an expression: The tail is wagging the dog. Sometimes the tail not only wags the dog but smashes it on the ground. When independents undercut, the bigger companies are obliged to compete."

Texaco is one of the more familiar U.S. brands also popular in the U.K.

Gasoline stations in the U.K. are generally owned by the oil companies, smaller chains or independent retailers. There is no wholesale class of trade to speak of in the U.K., so most stations are supplied directly by the majors or smaller chain retailers. As in the U.S., most new marketing investments are being allocated to company-owned and operated stores.

In the last two or three years, C-stores, or "shops," have become more widespread. Unleaded gasoline is also taking hold in the British marketplace. Four years ago there was no unleaded product to speak of in the market. Now unleaded gasoline accounts for one fourth of all gasoline sold there.

Algar says that while big companies do not control the competitive pricing situation on the streets, they have the muscle to install up-to-date equipment, modern

For many U.K. stations, service bays are giving way to C-stores.

French controlled retail chain Elf Aquitaine expects to incorporate the roughly 250 Amoco stations it purchased last year into its chain by the end of 1991.

pumps and newly styled outlets.

BP, for instance, is renovating sites in much the same way it has done in the U.S. These investments make sense due to one interesting English anomaly: the company-owned car. In the U.K., roughly 50% of British motorists drive company cars. It's a company perk that most people in the U.S. are unfamiliar with. So while price still remains important, motorists enjoying the use of company vehicles are also attracted by image and convenience.

The high percentage of company cars on the road usually allows marketers such as BP to command better margins for gasoline. And the company appears set on getting a higher return on its retail investments, or as one BP spokesman says, "Being No. 3 in the market, we have a different strategy. For other companies the goal may be volume. Ours is profit."

The 'new' look

BP, Shell and Esso have been investing in the type of retail facilities most marketers in the U.S. would be comfortable with. Canopies, MPDs, rollover car washes and C-stores have been popping up all over the countryside.

Basically, the station configurations look like their U.S. cousins, although most locations have smaller drive-through areas than stations in the U.S.

The C-stores are typically medium-sized, averaging about 1,000-1,200-sq.ft. One of BP's prototype stores located next to its modern headquarters in Hemel Hempstead is a larger store with roughly 2,000-sq.ft.

C-stores in the U.K., on the whole, are not as diversified as those in the U.S. Most of the merchandise is in packaged candies, motor oils and various liquid refreshments.

Microwaves with pizza and sandwiches in nearby coolers appear to be the extent of fast food involvement. There are few delis or fast food departments.

Kuwaiti question

Where certain companies are beginning to move ahead in such areas as C-store development, the problem for some chains is one of survival.

The Kuwaiti "Q-8" chain had obstacles to overcome with the Iraqi occupation and subsequent war.

In an interview published in an internal publication, Nader Sultan, president of Kuwait Petroleum International (KPI) says the company had to move in the days following the invasion. "We had to work quickly on two main fronts: to keep our everyday business running smoothly and at the same time restructure KPI's operations to take account of what had happened."

Nader Sultan explains that there were questions of legality and authority in those first confusing days. "Some people questioned the legitimacy of those acting on [the company's] behalf outside the country. For example, they would ask on whose authority we were redirecting tankers at sea."

Then KPI had the task of securing 400,000 b/d it had formerly received from its own sources in Kuwait. To replace that lost product, KPI officials went to the open market to purchase supplies, principally from Saudi Arabia.

Buyouts

Amoco's pullout from the U.K. came about with the selloff of its marketing assets to Elf Aquitaine. The sale involved about 250 locations, adding considerably to the Paris-based company's U.K. retail asset base.

"Basically, the sale is in line with Amoco's strategies to divest its refining and refined petroleum products marketing operations outside the U.S.," says one Amoco spokesperson, adding that it has been a strategy in place for some time now.

Elf Aquitaine says it will complete its integration of the Amoco units into its chain sometime this year.

Another continental firm, Repsol, has also set up shop in the U.K. retail market. A Spanish firm, Repsol purchased Carless, a strong U.K. independent, back in mid-1989, and while it has yet to come out with a Repsol brand, sources say the company intends to do so in the near future.

A new market

U.S. marketing execs see plenty of potential in the British market. For many U.S. corporations, England and its English-speaking population makes for a good first step into the international marketplace.

One recent arrival on the U.K. petroleum scene was a car wash manufacturer out of Green Bay, Wisc. PDQ Manufacturing Inc. has linked up with a U.K. distributor to market its "Laserwash" line of frictionless, in-bay car washes.

A spokesman for PDQ says, "A marketing strategy is already being developed to include other European countries."

THE U.K.'S TOP OIL COMPANIES

Brand Name	Total No. of retail outlets	Total No. of self-service	Total No. of company-owned
Shell	2,653	1,576	1,163
Esso	2,520	1,420	1,115
BP/	1,992	1,637	883
National Burmah/ Major	1,374	513	217
Texaco	1,268	1,208	705
Jet	1,112	753	257
Mobil	890	813	530
Q-8/Pace	876	239	86
Fina	844	615	245
UK	668	33	12
Elf	659	532	389

Source: Retail Marketing Survey, Supplement to the Petroleum Review. Published by the Institute of Petroleum. Available for L25.

The No. 2 player in the market, Exxon is known as "Esso" in the U.K.

Letters to the Editor

Thanks

Just a short note to thank you [Dick Shaner] once again for the fine article you did about Tyree Co. and our infamous soil burning monster machine [*NPN*—May '89, p48].

After two years of battling with every bureaucratic idiot that New York state could muster up against us, we finally won!

We are fully licensed in New York state and are successfully performing soil cleansing jobs in the New York area.

I thought you might be interested in hearing this news.

I hope this finds you in good health.

William F. Tyree
Larry E. Tyree Co., Inc.

More Thanks

Thank you for the courtesy of printing our news item about T.I.N.Y. [*NPN*—April '91, p17]. I just received my copy Monday and already have had several people contact me regarding the article.

As I mentioned in my previous letter, I have always enjoyed your publication and still do...very much! I look forward to much more interest in our venture because of the timely publication of your article in the April issue.

I wish you continued success in your endeavors and, trying not to be repetitious, all of T.I.N.Y.'s charter members and future members thank you.

John F. Pirong
Vice President
Clemett and Co., Inc.

Conventional Wisdom

Once again, allow me to express my profound gratitude to you [Peggy Smedley] for all the assistance and support which you and your staff so generously supplied in connection with our recent convention and trade show.

As always, your advice and suggestions were extremely helpful and were invaluable in making the event the success that it was. The daily distribution of the Stations 'n Stores special edition was terrific. Our members really appreciated it.

I really regret that I was unable to get in on the "Survival" seminar, but I heard that it was excellent. One thing of which I am certain, even without having been there, is that the moderator was superb.

Your assistance and very effective "support system" is very much appreciated and I hope the opportunity will present itself which will allow me to reciprocate in some way for your kindness to me and the association.

William R. Deutsch
Executive Vice President
Illinois Petroleum Marketers Assn.
Illinois Assn. of Convenience Stores

Still Viable

On page 9 of the April issue of *NPN*, there was an article on the Chapter 11 filing of AcuTest Corp. It gave the impression that the tank testing system distributed by them may not be available in the future.

AcuTest Corp. is only a distributor of the Leak Computer Tank Test System manufactured by Hasstech, Inc. Over 120 of these systems, each capable of testing four tanks simultaneously, are operated by independent tank testers throughout the U.S. and Canada. I can assure you that these tank testers are healthy and are continuing to work with no regard to the problems that AcuTest may have.

I would also like to assure those tank testers and any future purchasers that Hasstech is quite healthy and will continue to manufacture and sell the Leak Computer Tank Test System as well as pipeline leak detection systems, soil remediation systems and other products for the petroleum industry.

In the same issue, there was a very interesting article about the number of service stations. Using the reported figure of 210,120 stations and using a figure of three tanks per station, this would calculate to a total of 630,360 underground tanks. This is only 1/3 of the total number of underground tanks reported by EPA (1.8-million at last count). It would appear that the number of service stations is probably above 300,000. That still leaves 900,000 underground storage tanks for farms, private owners and the chemical industry.

Keep up the good reporting. I love every issue.

Detlev E. Hasselmann
Hasstech, Inc.

Desperation

Maybe I am writing to you out of desperation, so I'll start from the beginning.

In the summer of 1989, the state EPA notified all stations in Minnesota that if storage tanks were 20 years old or older, they would have to be replaced with all new equipment or be locked up by Oct. 31, 1989. Since our tanks and equipment were the oldest in town—36 years old—we chose to lock the doors because we couldn't afford to replace everything. We called the EPA and got permission to remove our tanks and had tests made. There was a lot of contamination, so being that winter was coming on, we were given permission to excavate and put in new gravel. But being at lake level, we had more tests made in October 1990, and the results were that the already contaminated water had contaminated the $8,000 worth of soil that we had replaced.

So now we are $13,000 in debt with a bank loan, and here we sit today—deep in debt and no solution. I haven't worked since we locked the doors. We can't sell, but are still stuck with real estate taxes. Maybe I'm writing to the wrong place when I should be writing or calling Brian Ettesvold, director of the Minnesota Service Station Assn., but I have no address or telephone number. Please help me, as I am going out of my mind.

John Bjors
B & B Sinclair
Glenwood, MN

CLARIFICATION

In the March 1991 issue of *NPN*, a table (page 22) listing C-store chains that filed for either Chapter 11 bankruptcy protection or Chapter 7 liquidation included two Regal stations of Wickland Oil Co. of Sacramento, Calif. The list was obtained from a usually reliable trade source. Wickland has informed *NPN* the reference to the Regal stations was incorrect.

Also, in the April 1991 issue of *NPN* on page 9 we reported that Houston-based Accutest continues to struggle under Chapter 11. It should have been reported that Houston-based AcuTest is struggling under Chapter 11. Accutest Laboratories of Dayton, N.J., has no affiliation with the aforementioned tank testing company. *NPN* regrets these errors.

Letters to the Editor, with the writers' names, address and daytime phone number should be sent to The Editor, National Petroleum News, 950 Lee Street, Des Plaines, IL 60016 or Fax: 708/803-3328. Letters are subject to editing for reasons of space and clarity.

NOTE

ONLY THE FOLLOWING PAGES OF THIS

PUBLICATION HAVE BEEN FILMED

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20-23, 26-32, 34-52, 55-64,

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